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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

TOPLISS ET AL.

Atty. Ref.: 117-572; Confirmation No. 6884

Appl. No. 10/563,098

TC/A.U. Unknown

Filed: December 30, 2005

Examiner: Unknown

For: CAMERA LENS SUSPENSION

* * * * *

February 6, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

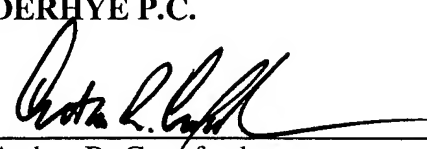
SUBMISSION

Submitted herewith is the International Preliminary Report on Patentability received in the underlying PCT/GB2004002781 case.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____


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PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT


NOTIFICATION CONCERNING TRANSMITTAL OF COPY OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OF THE PATENT COOPERATION TREATY)

(PCT Rule 44bis.1(c))

To:

MERRYWEATHER, Colin, Henry
J.A. Kemp & Co.
14 South Square
Gray's Inn
London WC1R 5JJ
ROYAUME-UNI

REC'D 19 JAN 2006

Action by 

Date of mailing (day/month/year)
12 January 2006 (12.01.2006)

Applicant's or agent's file reference
N.92261 CHM

IMPORTANT NOTICE

International application No.
PCT/GB2004/002781

International filing date (day/month/year)
28 June 2004 (28.06.2004)

Priority date (day/month/year)
01 July 2003 (01.07.2003)

Applicant

1...LIMITED et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Nora Lindner

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

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To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/002781

International filing date (day/month/year)
28.06.2004

Priority date (day/month/year)
01.07.2003

International Patent Classification (IPC) or both national classification and IPC
G02B7/02, G11B7/09

Applicant
1... LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/002781

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/002781

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3-17,19,20,23
	No: Claims	1,2,18,21,22
Inventive step (IS)	Yes: Claims	3-5,16,17,23
	No: Claims	1,2,6-15,18-22
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The documents, cited in the search report, are considered as the most relevant prior art:

D1: US-A-3 514 179 (KOEBER HENRY J JR) 26 May 1970 (1970-05-26)

D2: WO 02/103451 A (LENEL URSULA RUTH ; ALLAN JAMES (GB); 1 LTD (GB); HOOLEY ANTHONY (GB);) 27 December 2002 (2002-12-27)

D3: DE 39 24 190 A (THOMSON BRANDT GMBH) 31 January 1991 (1991-01-31)

D4: US-A-4 766 583 (GODA YOSHIMASA ET AL) 23 August 1988 (1988-08-23)

2. Novelty - Article 33(2) PCT

- 2.1 The application defines the subject-matter by three independent claims, that concern partly overlapping definitions.

- 2.1.1 The number of independent claims should be kept to a minimum, for the sake of clarity (Rule 6 PCT). The overlapping definitions of claims 1 and 21 should be set out in a single claim.

- 2.1.2 The basic definition concerns a camera with a support structure, a lens holder and a suspension and an actuator.

According to claim 1, the suspension has two link elements.

According to claim 3, the suspension has two series coupled pivotal linkage, with each two link elements.

According to claim 21, the suspension has one pivotal linkage with two link elements. Thus, the definition of claim 1 and 21 appears to be equal.

- 2.2 D1 discloses a camera with a support structure, a lens holder and a suspension with a linkage comprising two link elements. The axes are parallel. See figures 1 and 6 in particular. Consequently the features of claims 1, 2, 18, 21 and 22 are disclosed by this prior art.

- 2.3 The D1 disclosure does not show a double serial pivotal linkage.

Thus, the subject-matter of independent claim 3 appears to be new within the meaning of Article 33(2) PCT. The dependent claims 4, 5 consequently define new subject-matter as well.

3. Inventive Step - Article 33(3) PCT.

- 3.1 The relevant prior art is shown by D2: WO 02/103451. The lens holder 37 is slidably arranged to be moved by actuator 40.

- 3.2 The skilled person working with miniature cameras would objectively define the technical problem in the lack of a controlled guidance of the lens holder. For better precision the lens holder must be securely guided.

With the miniaturisation of the objectives, the skilled person would investigate miniature objectives and especially the translatory guidance of the lenses or lens holders.

- 3.3 Consequently, the field of miniature objectives, that are used in (portable) data processing devices and data readers, would be taken into account. The present applicant mentions this field in the description.

- 3.4 According to D3: DE 39 24 190 A, a double, parallel arm pivoting linkage is used to guide the translatory movements of the lens holder. The arms may also be used for tracking operation.

- 3.5 The skilled person would apply the prior art knowledge of D3 and improve the guiding function of sliding lens holder 37 of D2 by means of such a linkage.

- 3.6 The actual shape of the linkage is made such that the thinnest portions act as hinges, whereby the thickness decreases gradually until the pivotal connection. The linkage is made in one piece of plastic. The pivotal connection extends around a limited peripheral part of the lens holder, as seen in the drawings.

The obvious solution would be used by the skilled person such that the subject-matter defined by claims 2, 6-9, 11-15, 18-22 lacks inventive step.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/002781

- 3.7 The subject-matter of claims 3,4,5,16,17 and 23 appears to be inventive within the meaning of Article 33(3) PCT.

Re item VII

4. The drawings viewed by the examiner are of poor quality, with washed-out lines. In particular the features of fig 3A-11B are barely recognizable. Formal drawings executed as required by the PCT should be filed (see Rule 11(a) and (f) PCT).